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Examiner THAIANN N. TON

Group Art Unit 1632

APPENDIX A

1. A method of testing the immune compatibility of cloned cells or tissues in a non-human animal model, comprising:

- a. obtaining a cell from a non-human donor animal;
- b. removing the nuclear DNA from a recipient oocyte, transferring the nucleus from said donor cell into the recipient oocyte, under conditions that result in the generation of [and generating a] a non-human embryo;
- c. isolating an embryo having at least one cell, an embryonic disc and/or stem cell from said non-human embryo;
- d. injecting said embryo, disc and/or stem cell into said non-human donor animal at the same time as control embryonic disc and/or stem cell; and
- e. examining the injection sites for teratoma formation and signs of rejection of the injected cells or of teratomas derived therefrom.

2. The method of Claim 1, wherein said cell from said donor animal is transfected with a heterologous gene prior to nuclear transfer.

3. The method of Claim 1, herein said donor and control embryonic discs and/or stem cells are injected subcutaneously or into the paralumbar fascia.

4. The method of Claim 1, wherein said teratoma, if formed, is removed and examined for the presence of germ layers.

5. The method of Claim 4, wherein the germ layers, if formed, are separated for the purpose of detecting or isolating specific cell types.

6. The method of Claim 1, wherein the cell obtained from said donor animal is a fibroblast.

7. The method of Claim 2, wherein said heterologous gene is a reporter gene selected from the group consisting of green fluorescent protein (GFP), beta-galactosidase, and luciferase.

8-10. (CANCELLED)

11. The method of Claim 5, wherein the germ layer cells are further used in assays to evaluate potential developmental signals that control cell differentiation.

12. The method of Claim 5, wherein at least one type of cell found in the germ layers is used to engineer a tissue.

13. The method of Claim 12, wherein said engineered tissue is transplanted back into said donor animal to test immune compatibility.

14. The method of claim 12, wherein said engineered tissue is selected from the group consisting of smooth muscle, skeletal muscle, cardiac muscle, skin, kidney and nervous tissue.

15-55. (CANCELLED)